

REMARKS

Claims 1-21 were pending in the present application. Claim 3 was amended. Accordingly, claims 1-21 are still pending in the present application.

Claim 3 stands rejected under 35 U.S.C. §112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claim 3 for clarity.

Claims 1-21 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of co-pending Application number 10/216,541. Applicant respectfully requests the double patenting rejection be held in abeyance until the pending claims are otherwise indicated as allowable, at which time Applicant will consider the filing of a terminal disclaimer, or cancellation of the provisional rejection if the co-pending application has not yet been allowed (*see* MPEP §804).

Claims 1-14 and 16-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted prior Art (APA) in view of Graf (U.S. Patent Number 6,192,423) (hereinafter 'Graf'). Applicant respectfully traverses this rejection.

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over APA in view of Graf and in further view of Shiekh et al. (U.S. Patent Number 6,266,721) (hereinafter 'Shiekh').

Applicant's claim 1 recites

"a service processor for a computer system that includes a host processor and the service processor, the service processor including a management interface including a first port forming an external user interface and a second port forming an internal console interface, the service processor being operable to provide system management functions within the computer system and further being responsive to external mode switching

commands received via the user interface to operate one of a management mode in which commands received via the user interface are processed by the service processor and a console mode in which commands received via the user interface are passed by the service processor to the console interface for processing by the host processor.” (Emphasis added)

The Examiner asserts that the APA teaches each and every element of Applicant's claim 1 excepting a second port for the internal console interface and external mode switching commands. The Examiner further asserts that Graf teaches these limitations and that it would have been obvious to combine them to obtain the Applicant's invention. Applicant respectfully disagrees with the Examiner's characterization of both the Applicant's APA and Graf.

Specifically, Applicant's APA discloses at page 1, lines 11-18 of the specification “This known service processor provides Lights Out Management service processor functions. This service processor, that is implemented using a microcontroller, provides basic independent monitoring and control functions within the server. The service processor in this prior product is connected to a serial network port via a multiplexer. The multiplexer enables a remote management station to interface either with the service processor for providing management functions or with the host processor for providing console functions.”

Thus, in contrast to the Examiner's assertion, Applicant's APA teaches a microcontroller having a single port that serves as a service processor. The multiplexer is used to connect an external serial port between the host processor and the service processor. Thus, APA does not teach or disclose the service processor “including a first port forming an external user interface and a second port forming an internal console interface” nor does APA teach or disclose the service processor “operating one of a management mode in which commands received via the user interface are processed by the service processor and a console mode in which commands received via the user interface are passed by the service processor to the console interface for processing by the host processor” as recited in Applicant's claim 1.

In addition, in contrast to the Examiner's assertion, Graf actually discloses at col. 2, lines 25-65

“FIG. 1 shows a network server which utilizes a single serial port connector 17 to provide access to either a host application (remote access software) or a separate microcontroller 12. The host application runs on a central processing unit (CPU) 30 within a motherboard 14. A Universal Asynchronous Receiver Transmitter (UART) 15 is used by the host application to access the serial port. ...

A microcontroller 12 includes an internal UART 13. ...
A multiplexer 16 selects either UART 13 or UART 15 to be connected to a serial port connector. For example, serial port connector is an EIA-232-D (nine signal) RS-232 connector. A modem 18 is used to provide communication between serial port connector 17 and a telephone line 23. A control logic 11 through a multiplexer control (MUXCTL) line 25 controls the selection made by multiplexer 16. Control logic 11 monitors lines 26 from serial port connector. Lines 26 include a data carrier detect line (DCD) line 26 and a receive data (RD) line.” (Emphasis added)

Graf also discloses at col. 4, lines 4-55

“Input/output lines 28 for UART 15 include a transmitted data line (TD2), a receive data line (RD2), a ready to send line (RTS2), a data terminal ready line (DTR2) and a clear to send line (CTS2), a data set ready line (DSR2) and a data carrier detect line (DCD).

In order to appropriately switch multiplexer 16, control logic 11 monitors DTR2 through line 27, as well as DCD and RD lines 26 directly from serial port connector.

FIG. 2 is a simplified flowchart which illustrates how control logic 11 controls the switching of multiplexer 16. In a step 31, when a user calls in through modem 18 and serial port connector 17, multiplexer 16, by default, connects serial port connector to UART 13 and control logic 11. Microcontroller 12 handles the user log in.

As illustrated by a step 32, once the user is logged in, the user can select a “serial port pass through” mode. When the user selects the “serial port pass through” mode, in a step 33, control logic 11 asserts MUXCTL line 25 causing multiplexer 16 to connect UART 15 to serial port connector. The host application can then utilize serial port connector 17 through UART 15 to communicate with the user (client) software. The host application can be implemented, for example, using remote access software such as Remote Access Service software available from Microsoft Corporation, having a business address at 16011 NE 36th Way, Redmond, Wash. 98073-9717.

In order to provide for a smooth hand-off to the host application, the host application has to set up a direct-connection which has the same serial connections (e.g., baud rate, parity and flow control) as used by microcontroller 12. The host application is configured to launch at startup and waits for DCD to be asserted. Thus the host application will always be waiting for a connection.

In a step 34, control logic 11 waits one minute for connection to be made. Control logic 11 monitors DCD line 26 to determine whether a connection is made. When the signal on DCD line 26 is asserted, this indicates that a connection has been made. If the signal on DCD line 26 is not asserted within one minute, a time-out has occurred.

If in step 34, a time-out has occurred, control logic proceeds to a step 37. If, in step 34, a connection is made before there is a time-out, in a step 35, the host application establishes a connection with the client application. In the preferred embodiment, the client application is able to switch between remote management application (run on microcontroller 12) and remote access application (the host application running on CPU 30) without dropping the connection to modem 18. Control logic 11 continues to monitor the connection between serial port connector 17 and UART 15 to detect when a disconnect has occurred.” (Emphasis added)

From the foregoing, it is clear that Graf uses a multiplexer that is external to the microcontroller to select between a remote user using the microcontroller or the host CPU. Thus, Applicant submits that Graf does not teach or even fairly suggest a system controller including “a first port forming an external user interface and a second port forming an internal console interface,” **nor does Graf teach or suggest** “the service processor being responsive to external mode switching commands received via the user interface to operate one of a management mode in which commands received via the user interface are processed by the service processor and a console mode in which commands received via the user interface are passed by the service processor to the console interface for processing by the host processor” as recited in Applicant’s claim 1.

Furthermore, since Graf clearly uses an external multiplexer, such as the multiplexer used in Applicant’s APA, Applicant submits that combining Graf with APA would not produce Applicant’s invention as recited in the claims.

Thus, Applicant submits that neither APA nor Graf, taken either singly or in combination, teach or suggest the features recited in Applicant’s claim 1. Accordingly, Applicant believes claim 1, along with its dependent claims, patentably distinguishes over APA and over APA in view of Graf for the reasons given above.

Shiekh is directed toward a computer system in which “a distributed service processor network 102 may operate as a fully self-contained subsystem within the server system 100, continuously monitoring and managing the physical environment of the machine (e.g., temperature, voltages, fan status).” (See Shiekh col. 5, lines 15-19) (Emphasis added)

Applicant submits that Shiekh does not teach or suggest the service processor “being responsive to external mode switching commands received via the user interface to operate one of a management mode in which commands received via the user interface are processed by the service processor and a console mode in which commands received via the user interface are passed by the service processor to the console interface for processing by the host processor” as recited in Applicant’s claim 11. (Emphasis added)

Applicant’s notes that claims 11, 16 and 19 recite features that are similar to features recited in Applicant’s claim 1. Accordingly, Applicant submits that claims 11, 16 and 19, along with their respective dependent claims, patentably distinguish over APA, over APA in view of Graf, and over APA in view of Graf and in further view of Shiekh for at least the reasons given above.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-03200/SJC.

Respectfully submitted,



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Date: January 10, 2005